

## AMENDMENTS OF THE CLAIMS

### In the Claims

The following Listing of Claims, in which deleted text appears struck through, *i.e.*, ~~struck through~~, and inserted text appears underlined, *i.e.*, underlined, will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

120. (Withdrawn-currently amended) A composition comprising trichloroisocyanuric acid, ~~an~~ a primary alcohol selected from the group consisting of primary and or a secondary alcohol ~~alcohols~~, a base, and a compound of formula  $R_1SR_2$ , wherein  $R_1$  and  $R_2$  are each independently  $-(C_1-C_{20})$ alkyl,  $-(C_3-C_8)$ cycloalkyl or -phenyl.

121. (Withdrawn-currently amended) The composition of claim 120 ~~1~~, wherein  $R_1$  is  $CH_3$  and  $R_2$  is  $-(C_{12})$ alkyl.

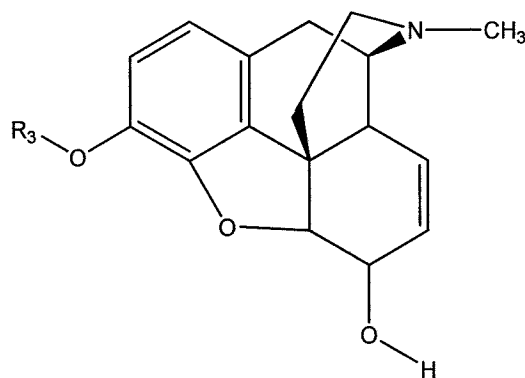
122. (Withdrawn-currently amended) The composition of claim 120 ~~1~~, wherein the amount of the compound of formula  $R_1SR_2$  ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.5 to about 3.5 molar equivalents per molar equivalent of trichloroisocyanuric acid.

123. (Withdrawn-currently amended) The composition of claim 120, wherein the base is an organic amine selected from ~~the group consisting of~~ triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, ~~and dimethylaminopyridine, and any mixture thereof.~~

124. (Withdrawn-currently amended) The composition of claim 120, wherein the amount of base ranges from about 1.0 to about 15.0, from about 2.0 to about 10.0, or from about 2.5 to about 7.0 molar equivalents per molar equivalent of trichloroisocyanuric acid.

125. (Withdrawn) The composition of claim 120, wherein the secondary alcohol has formula

(I):



wherein  $R_3$  is a protecting group.

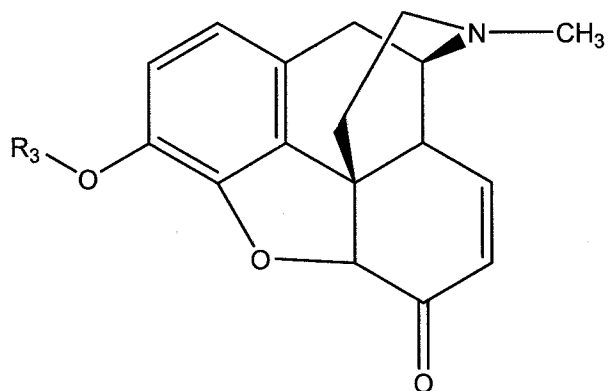
126. (Withdrawn) The composition of claim 125, wherein  $R_3$  is  $-(C_1-C_{10})$ alkyl, -benzyl,  $-C(O)(C_1-C_{10})$ alkyl,  $-C(O)O(C_1-C_{10})$ alkyl,  $-Si((C_1-C_{10})alkyl)_3$ ,  $-Si(aryl)((C_1-C_{10})alkyl)_2$ ,  $-Si(aryl)_2((C_1-C_{10})alkyl)$ ,  $-P(O)((C_1-C_{10})alkyl)_2$ ,  $-P(S)((C_1-C_{10})alkyl)_2$ , or  $-S(O)OC_6H_4-p-CH_3$ .

127. (Withdrawn) The composition of claim 126, wherein  $R_3$  is  $-CH_3$  or  $-Si(CH_3)_2(C(CH_3)_3)$ .

128. (Withdrawn) The composition of claim 120, wherein the amount of the alcohol ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.0 to about 4.0 molar equivalents per molar equivalent of trichloroisocyanuric acid.

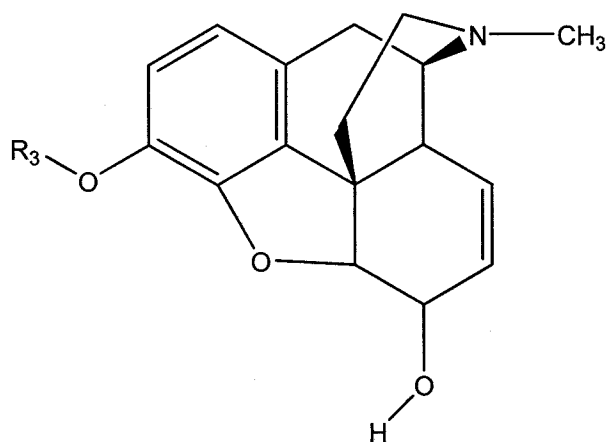
129. (Withdrawn-currently amended) The composition of claim 120 further comprising an organic solvent selected from ~~the group consisting of~~ benzene, toluene, xylene, mesitylene, chlorobenzene, dichloromethane, chloroform, carbon tetrachloride, dichloroethane, diethyl ether, dipropyl ether, di-butyl ether, methyl-tert-butyl ether, tetrahydrofuran, methyltetrahydrofuran, ethyl acetate, and ~~combination~~ any mixture thereof.

130. (Currently Amended) A method for making a compound of formula (II):



(II)

~~ketone~~, comprising allowing a compound of formula (I):



(I),

~~secondary alcohol~~ to react in the presence of a compound of formula  $R_1SR_2$ , trichloroisocyanuric acid and a base under conditions sufficient to make the ~~ketone~~ compound of formula (II);[[.]] wherein

$R_1$  and  $R_2$  are each independently  $-(C_1-C_{20})$ alkyl,  $-(C_3-C_8)$ cycloalkyl or -phenyl[[.]]; and

$R_3$  is a protecting group.

131. (Previously Presented) The method of claim 130, wherein  $R_1$  is  $-\text{CH}_3$  and  $R_2$  is  $-(\text{C}_{12})\text{alkyl}$ .

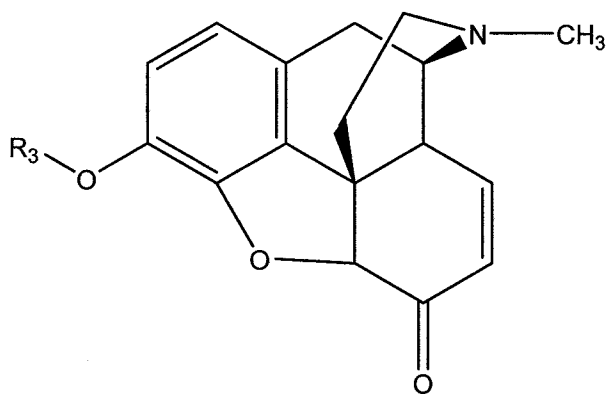
132. (Previously Presented) The method of claim 130, wherein the amount of the compound of formula  $R_1\text{SR}_2$  ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.5 to about 3.5 molar equivalents per molar equivalent of trichloroisocyanuric acid.

133. (Currently Amended) The method of claim 130, wherein the base is an organic amine selected from ~~the group consisting of~~ triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, ~~or dimethylaminopyridine, and any mixture thereof.~~

134. (Previously Presented) The method of claim 130, wherein the amount of base ranges from about 1.0 to about 15.0, from about 2.0 to about 10.0, or from about 2.5 to about 7.0 molar equivalents per molar equivalent of trichloroisocyanuric acid.

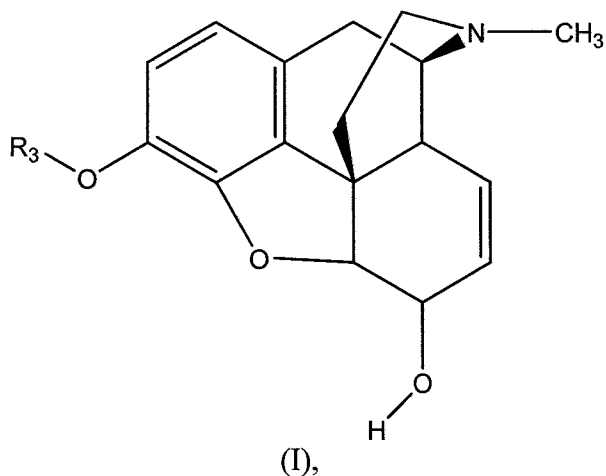
135. Canceled

136. (Previously Presented) A method for making a compound of formula (II):



(II)

comprising, allowing a compound of formula (I):

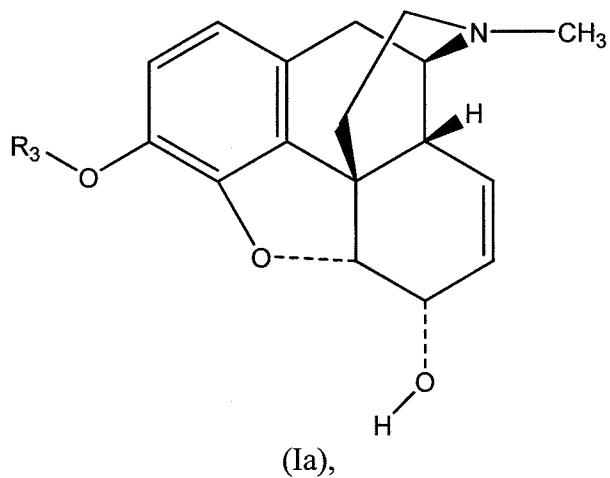


to react in the presence of a compound of formula  $R_1SR_2$  and a chlorine-containing reagent under conditions sufficient to make the compound of formula (II); wherein

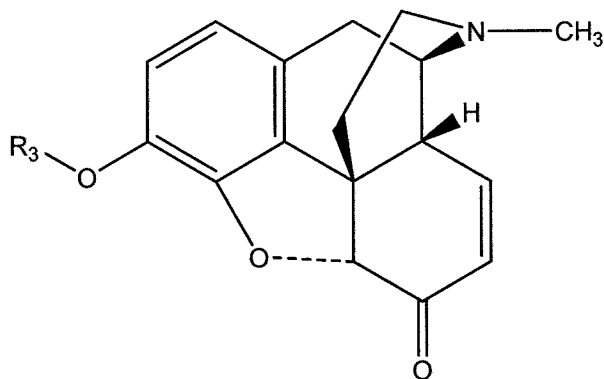
$R_1$  and  $R_2$  are each independently  $-(C_1-C_{20})$ alkyl,  $-(C_3-C_8)$ cycloalkyl or -phenyl; and

$R_3$  is a protecting group.

137. (Previously Presented) The method of claim 136, wherein the compound of formula (I) is a compound of formula (Ia):



and the compound of formula (II) is a compound of formula (IIa):



(IIa).

138. (Previously Presented) The method of claim 136, wherein  $R_3$  is  $-(C_1-C_{10})$ alkyl, -benzyl,  $-C(O)(C_1-C_{10})$ alkyl,  $-C(O)O(C_1-C_{10})$ alkyl,  $-Si((C_1-C_{10})alkyl)_3$ ,  $-Si(aryl)((C_1-C_{10})alkyl)_2$ ,  $-Si(aryl)_2((C_1-C_{10})alkyl)$ ,  $-P(O)((C_1-C_{10})alkyl)_2$ ,  $-P(S)((C_1-C_{10})alkyl)_2$ , or  $-S(O)OC_6H_4-p-CH_3$ .

139. (Previously Presented) The method of claim 138, wherein  $R_3$  is  $-CH_3$  or  $-Si(CH_3)_2(C(CH_3)_3)$ .

140. (Previously Presented) The method of claim 136, wherein the chlorine-containing reagent is trichloroisocyanuric acid, N-chlorosuccinimide, sodium dichloroisocyanurate, 1,3-dichloro-5,5-dimethylhydantoin,  $Cl_2$ , calcium hypochlorite, or any mixture thereof.

141. (Previously Presented) The method of claim 136, wherein the amount of the compound of formula (I) ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.0 to about 4.0 molar equivalents per molar equivalent of the chlorine-containing reagent.

142. (Previously Presented) The method of claim 136, wherein  $R_1$  is  $-CH_3$  and  $R_2$  is  $-(C_{12})$ alkyl.

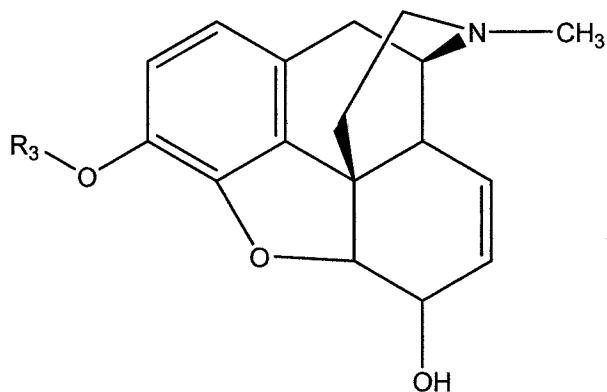
143. (Previously Presented) The method of claim 136, wherein the amount of the compound of formula  $R_1SR_2$  ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.5 to about 3.5 molar equivalents per molar equivalent of the chlorine-containing reagent.

144. (Previously Presented) The method of claim 136, further comprising the use of a base.

145. (Currently Amended) The method of claim 144, wherein the base is an organic amine selected from ~~the group consisting of~~ triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, ~~and dimethylaminopyridine, and any mixture thereof.~~

146. (Previously Presented) The method of claim 144 wherein the amount of base ranges from about 1.0 to about 15.0, from about 2.0 to about 10.0, or from about 2.5 to about 7.0 molar equivalents per molar equivalent of the chlorine-containing reagent.

147. (Withdrawn) A composition comprising a compound of formula (I):



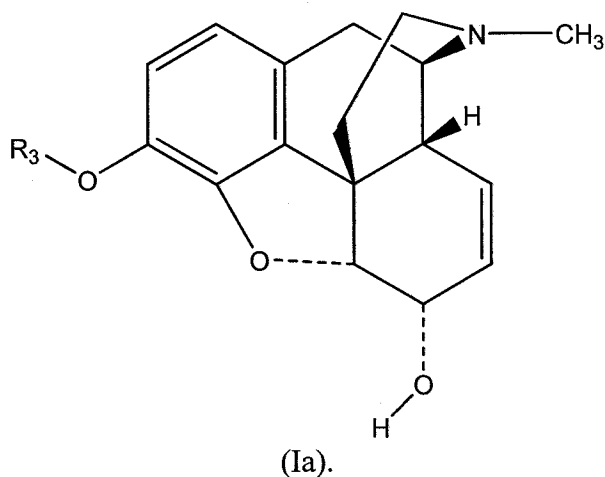
(I),

a compound of formula R<sub>1</sub>SR<sub>2</sub> and a chlorine-containing compound; wherein

R<sub>1</sub> and R<sub>2</sub> are each independently -(C<sub>1</sub>-C<sub>20</sub>)alkyl, -(C<sub>3</sub>-C<sub>8</sub>)cycloalkyl or -phenyl; and

R<sub>3</sub> is a protecting group.

148. (Withdrawn) The composition of claim 147, wherein the compound of formula (I) is a compound of formula (Ia):



149. (Withdrawn) The composition of claim 147, wherein the chlorine-containing reagent is trichloroisocyanuric acid, N-chlorosuccinimide, sodium dichloroisocyanurate, 1,3-dichloro-5,5-dimethylhydantoin,  $\text{Cl}_2$ , calcium hypochlorite, or any mixture thereof.

150. (Withdrawn) The composition of claim 147, wherein  $\text{R}_3$  is  $-(\text{C}_1\text{-C}_{10})\text{alkyl}$ ,  $-\text{benzyl}$ ,  $-\text{C}(\text{O})(\text{C}_1\text{-C}_{10})\text{alkyl}$ ,  $-\text{C}(\text{O})\text{O}(\text{C}_1\text{-C}_{10})\text{alkyl}$ ,  $-\text{Si}((\text{C}_1\text{-C}_{10})\text{alkyl})_3$ ,  $-\text{Si}(\text{aryl})((\text{C}_1\text{-C}_{10})\text{alkyl})_2$ ,  $-\text{Si}(\text{aryl})_2((\text{C}_1\text{-C}_{10})\text{alkyl})$ ,  $-\text{P}(\text{O})((\text{C}_1\text{-C}_{10})\text{alkyl})_2$ ,  $-\text{P}(\text{S})((\text{C}_1\text{-C}_{10})\text{alkyl})_2$ , or  $-\text{S}(\text{O})\text{OC}_6\text{H}_4\text{-}p\text{-CH}_3$ .

151. (Withdrawn) The composition of claim 150, wherein  $\text{R}_3$  is  $-\text{Si}(\text{CH}_3)_2(\text{C}(\text{CH}_3)_3)$  or  $-\text{CH}_3$ .

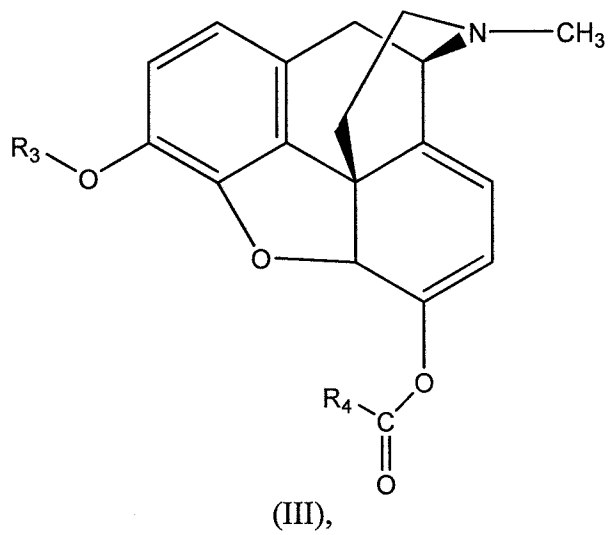
152. (Withdrawn) The composition of claim 147 further comprising a base.

153. (Withdrawn) The composition of claim 147 further comprising an organic solvent.

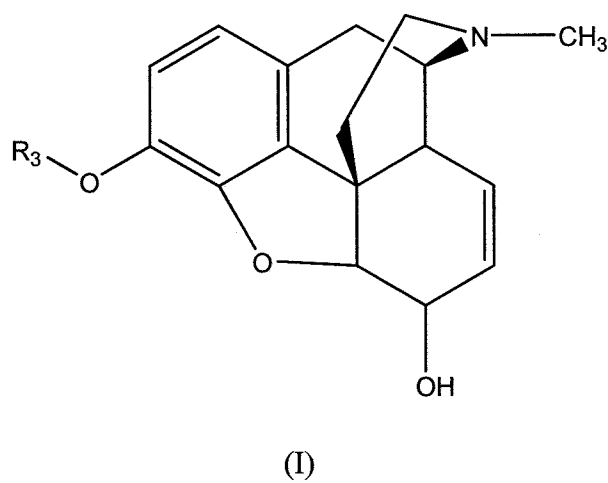


154. (Withdrawn) A method for making a compound of formula (III):

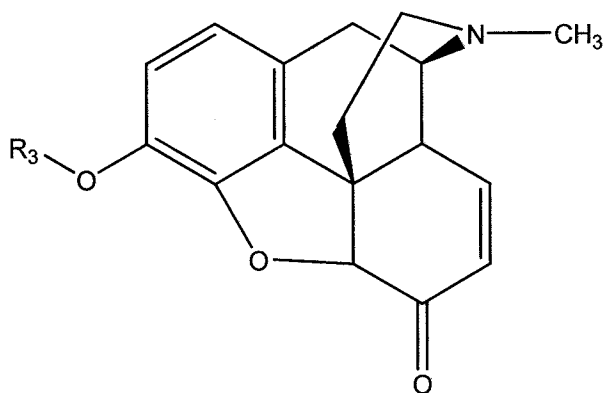
comprising:



(a) allowing a compound of formula (I):



to react in the presence of a compound of formula  $R_1SR_2$  and a chlorine-containing reagent under conditions sufficient to make a compound of formula (II):



(II);

and

(b) allowing the compound of formula (II) to react with a first base and an acylating agent of formula  $R_4C(O)OC(O)R_4$  or  $R_4C(O)X$  under conditions sufficient to make the compound of formula (III), wherein:

$R_1$  and  $R_2$  are each independently  $-(C_1-C_{20})$ alkyl,  $-(C_3-C_8)$ cycloalkyl or -phenyl;

$R_3$  is a protecting group;

$R_4$  is  $-(C_1-C_{10})$ alkyl; and

$X$  is -Cl, -Br or -I.

155. (Withdrawn) The method of claim 154, wherein  $R_3$  is  $-(C_1-C_{10})$ alkyl, -benzyl,  $-C(O)(C_1-C_{10})$ alkyl,  $-C(O)O(C_1-C_{10})$ alkyl,  $-Si((C_1-C_{10})alkyl)_3$ ,  $-Si(aryl)((C_1-C_{10})alkyl)_2$ ,  $-Si(aryl)_2((C_1-C_{10})alkyl)$ ,  $-P(O)((C_1-C_{10})alkyl)_2$ ,  $-P(S)((C_1-C_{10})alkyl)_2$ , or  $-S(O)OC_6H_4-p-CH_3$ .

156. (Withdrawn) The method of claim 155, wherein  $R_3$  is  $-Si(CH_3)_2(C(CH_3)_3)$  or  $-CH_3$ .

157. (Withdrawn) The method of claim 154, wherein the chlorine-containing reagent is trichloroisocyanuric acid, N-chlorosuccinimide, sodium dichloroisocyanurate, 1,3-dichloro-5,5-dimethylhydantoin,  $Cl_2$ , calcium hypochlorite, or any mixture thereof.

158. (Withdrawn) The method of claim 154, wherein the amount of the compound of formula (I) ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.0 to about 4.0 molar equivalents per molar equivalent of the chlorine-containing reagent.

159. (Withdrawn) The method of claim 154, wherein  $R_1$  is  $-CH_3$  and  $R_2$  is  $-(C_{12})alkyl$ .

160. (Withdrawn) The method of claim 154, wherein the amount of the compound of formula  $R_1SR_2$  ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.5 to about 3.5 molar equivalents per molar equivalent of the chlorine-containing reagent.

161. (Withdrawn) The method of claim 154, wherein step (a) further comprises the use of a second base.

162. (Withdrawn-currently amended) The method of claim 161, wherein the second base is an organic amine selected from ~~the group consisting of triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, or dimethylaminopyridine, and any mixture thereof.~~

163. (Withdrawn) The method of claim 161, wherein the amount of second base ranges from about 1.0 to about 15.0, from about 2.0 to about 10.0, or from about 2.5 to about 7.0 molar equivalents per molar equivalent of the chlorine-containing reagent.

164. (Withdrawn-currently amended) The method of claim 154, wherein the first base is an organic amine selected from ~~the group consisting of triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, or dimethylaminopyridine, and any mixture thereof.~~

165. (Withdrawn-currently amended) The method of claim 154, wherein the acylating agent is  $[-]CH_3C(O)OC(O)CH_3$  or  $CH_3C(O)Cl$ .

166. Canceled

167. (Withdrawn) The method of claim 154, wherein the amount of the first base ranges from about 1 to about 10, from about 2 to about 7, or from about 3 to about 6 molar equivalents per molar equivalent of the acylating agent.

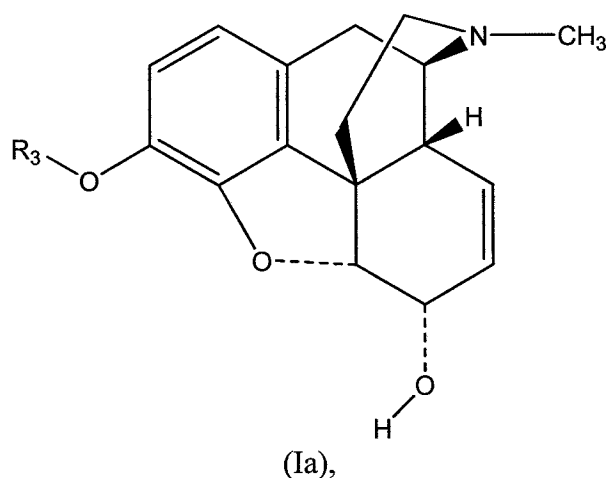
168. (Withdrawn) The method of claim 154, wherein the amount of the acylating agent ranges from about 1 to about 15, from about 1 to about 10, or from about 2 to about 7 molar equivalent per molar equivalent of the compound of formula (II).

169. (Withdrawn) The method of claim 161, wherein the first base and the second base are the same.

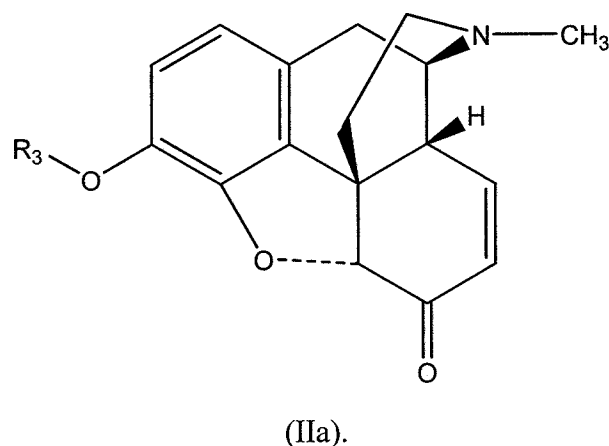
170. (Withdrawn) The method of claim 154, wherein step (a) further comprises isolating the compound of formula (II) prior to carrying out step (b).

171-175. Canceled

176. (New) The method of claim 130, wherein the compound of formula (I) is a compound of formula (Ia):



and the compound of formula (II) is a compound of formula (IIa):



177. (New) The method of claim 130, wherein R<sub>3</sub> is -(C<sub>1</sub>-C<sub>10</sub>)alkyl, -benzyl, -C(O)(C<sub>1</sub>-C<sub>10</sub>)alkyl, -C(O)O(C<sub>1</sub>-C<sub>10</sub>)alkyl, -Si((C<sub>1</sub>-C<sub>10</sub>)alkyl)<sub>3</sub>, -Si(aryl)((C<sub>1</sub>-C<sub>10</sub>)alkyl)<sub>2</sub>, -Si(aryl)<sub>2</sub>((C<sub>1</sub>-C<sub>10</sub>)alkyl), -P(O)((C<sub>1</sub>-C<sub>10</sub>)alkyl)<sub>2</sub>, -P(S)((C<sub>1</sub>-C<sub>10</sub>)alkyl)<sub>2</sub>, or -S(O)OC<sub>6</sub>H<sub>4</sub>-*p*-CH<sub>3</sub>.

178. (New) The method of claim 177, wherein  $R_3$  is  $-CH_3$  or  $-Si(CH_3)_2(C(CH_3)_3)$ .
179. (New) The method of claim 130, wherein the amount of the compound of formula (I) ranges from about 1.0 to about 9.0, from about 2.0 to about 5.0, or from about 2.0 to about 4.0 molar equivalents per molar equivalent of the chlorine-containing reagent.
180. (New) The method of claim 130, further comprising the use of a base.
181. (New) The method of claim 180, wherein the base is an organic amine selected from triethylamine, diisopropylethylamine, pyridine, dimethylpyridine, dimethylaminopyridine, and any mixture thereof.
182. (New) The method of claim 180 wherein the amount of base ranges from about 1.0 to about 15.0, from about 2.0 to about 10.0, or from about 2.5 to about 7.0 molar equivalents per molar equivalent of the chlorine-containing reagent.